

Appl. No. 10/713,321
Amdt. dated February 27, 2007
Reply to Office Action of November 27, 2006

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REMARKS/ARGUMENTS

Claims 1-27 are pending in the present application.

This Amendment is in response to the Office Action mailed on November 27, 2006. In the Office Action, the Examiner rejected claims 1-4, 7, 9-13, 16, 18-22, 25, and 27 under 35 U.S.C. §103(a); and claims 5-6, 8, 9, 14-15, 17, 23-24, and 26 under 35 U.S.C. §103(a). Applicant has amended claims 1, 2, 6, 8-11, 15, 17-20, 26 and 27. No new matter has been added. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-4, 7, 9-13, 16, 18-22, 25, and 27 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,057,839 issued to Advani *et al.* ("Advani") in view of U.S. Patent Publication No. 2003/0142143 issued to Brown *et al.* ("Brown"); claims 5-6, 14-15, and 23-24 under 35 U.S.C. §103(a) as being unpatentable over Advani and Brown as applied to claims 1, 4, 10-13, 19, and 22 above, and further in view of U.S. Patent No. 5,819,028 issued to Manghirmalani *et al.* ("Manghirmalani"); claims 8, 17, and 26 under 35 U.S.C. §103(a) as being unpatentable over Advani and Brown, as applied to claims, 1, 10, and 19 above, and further in view of U.S. Patent No. 6,456,306 issued to Chin *et al.* ("Chin"). Applicant respectfully traverses the rejections and submits that the Examiner has not met the burden of establishing a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-129 (8th Ed., Rev. 2, May 2004)*. Applicant respectfully submits that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

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1. Claims 1-4, 7, 9-13, 16, 18-22, 25, and 27:

Advani discloses a visualization tool for graphically displaying trace data produced by a parallel processing computer. A parallel display in a window depicts cumulative parallelism of multiple processors operating in a parallel computer (Advani, col. 6, lines 25-28). The display shows the trace data or the data structures representing the events in the event history storage (Advani, col. 7, lines 13-16; lines 42-44). Each of the four strip graphs with their Strip_Height indicate an activity diagram for a different processor (Advani, col. 9, lines 9-11; Figure 6A).

Brown discloses varying heights of application images to convey application status. Graphical characteristics of application images 56, 58, 60, and 62 may be adjusted to indicate the types of activity associated with the application (Brown, paragraph [0058], lines 1-3).

Advani and Brown, taken alone or in any combination, do not disclose, suggest, or render obvious, (1) displaying on a display device a first graphic type indicative of a processor usage for each one of at least two processors in a multiprocessor system; (2) the processor usage including at least one of processor assignment, processor availability, and clustering; and (3) displaying on said display device a second graphic type indicative of each one of at least two application groups associated with each of said at least two processors.

Advani merely discloses a display of a strip graph indicating an activity diagram for each processor (Advani, col.9, lines 9-11; Figure 6A), not a first graphic type indicative of a processor usage for each one of at least two processors in a multiprocessor system. A strip graph merely shows processor activities indicating system utilization over time (Advani, col.9, lines 14-17). A processor utilization is a function that varies between zero and a maximum number (Advani, col.9, lines 18-19). It does not show at least one of processor assignment, processor availability, and clustering. To clarify this aspect of the invention, claims 1, 10, and 19 have been amended.

Brown merely discloses application images to indicate the types of activity associated with the applications (Brown, paragraph [0058], lines 1-3), not an application assignment for each one of at least two application groups associated with each of said at least two processors in a multiprocessor system. The application images show the activities of the applications, but they do not show which application is assigned, or associated with, which processor in at least two processors in a multiprocessor system. To clarify this aspect of the invention, claims 1, 10, and 19 have been amended.

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Regarding claims 2, 11, and 20, since Advani does not disclose a second graphic type indicative of an application assignment, Advani does not disclose the second graphic type comprising a color indicative of the application assignment for each one of the two application groups. To clarify this aspect of the invention, claims 2, 11, and 20 have been amended.

2. Claims 5-6, 14-15, and 23-24:

Advani and Brown are discussed above.

Manghirmalani discloses a method and apparatus for determining the health of a network. Health information can be portrayed in the forms of a dial meter, graph meter, or digital meter. The dial meter is similar to that of an analog speedometer or fuel gauge in a car (Manghirmalani, col. 8, lines 15-19).

Advani, Brown, and Manghirmalani, taken alone or in any combination, do not disclose, suggest, or render obvious, at least one of (1) displaying on a display device a first graphic type indicative of a processor usage for each one of at least two processors in a multiprocessor system; (2) the processor usage including at least one of processor assignment, processor availability, and clustering; (3) displaying on said display device a second graphic type indicative of each one of at least two application groups associated with each of said at least two processors; (4) a graphic indicator indicating a group of said at least two processors wherein said group is indicative of a processor clustering; (5) a graphic indicator of processor utilization associated with each of said at least two processors; and (6) a gauge having gauge bands reflecting ranges of processor utilization, as recited in claims 5-6, 14-15, and 23-24.

As discussed above, Advani and Brown do not disclose elements (1) through (5). Accordingly, a combination of Advani and Brown with any other references in rejecting claims 5-6, 14-15, and 23-24 is improper.

Furthermore, Manghirmalani merely discloses using a dial meter to display health information of a network, not a processor utilization. The health information indicates whether the network is in repair and/or upgrade or in good health. It does not show the processor utilization. Moreover, Manghirmalani does not disclose or suggest at least two processors in multiprocessor systems. Manghirmalani only discloses a network. A network may be connected to multiple processors but it does not operate in the context of a multiprocessor system.

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2. Claims 8, 17, and 26:

Advani and Brown are discussed above.

Chin discloses a method and apparatus for displaying health status of network devices. A window uses colored network device icons and status panes to report the current operational state of the devices in the network (Chin, col. 6, lines 47-52).

Advani, Brown, and Chin, taken alone or in any combination, do not disclose, suggest, or render obvious, at least one of (1) displaying on a display device a first graphic type indicative of a processor usage for each one of at least two processors in a multiprocessor system; (2) the processor usage including at least one of processor assignment, processor availability, and clustering; (3) displaying on said display device a second graphic type indicative of each one of at least two application groups associated with each of said at least two processors; and (4) blocks associated with the graphic indicator indicating an application group assigned to a processor, as recited in claims 8, 17, and 26.

As discussed above, Advani and Brown do not disclose elements (1) through (3). Accordingly, a combination of Advani and Brown with any other references in rejecting claims 8, 17, and 26 is improper.

Furthermore, Chin merely discloses using colored icons to report the current operational state of the devices, not to indicate an application assigned to a processor. A current operational state of the devices does not involve an application assigned to a processor in a multiprocessor system.

In summary, there is no motivation to combine Advani, Brown, Manghirmalani, and Chin because none of them addresses the problem of displaying processor usage in a multiprocessor system. There is no teaching or suggestion that a first graphic type indicative of a processor usage or a second graphic type indicative of an application assignment is present. Advani, read as a whole, does not suggest the desirability of displaying a graphic type of application assignment for each of the application groups. For the above reasons, the rejection under 35 U.S.C. §103(a) is improperly made.

The Examiner failed to establish a prima facie case of obviousness and failed to show there is teaching, suggestion, or motivation to combine the references. When applying 35 U.S.C. §103, the following tenets of patent law must be adhered to: (A) The claimed invention must be

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considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined. Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, 974 F.2d 1309, 1312 (Fed. Cir. 1992), 24 USPQ2d 1040; Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). To defeat patentability based on obviousness, the suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. Interconnect Planning Corp. v. Feil, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills 916 F.2d at 682, 16 USPQ2d at 1432; In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992), 23 USPQ2d 1780.

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In the present invention, the cited references do not expressly or implicitly suggest any of the elements in the rejected claims. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Advani, Brown, Manghirmalani, and Chin is an obvious application of displaying processor usage in a multiprocessor system.

Therefore, Applicant believes that independent claims 1, 10, and 19 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejections under 35 U.S.C. §103(a) be withdrawn.

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Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

UNISYS CORPORATION

Dated: February 27, 2007

By

Phuong-Quan Hoang

Phuong-Quan Hoang

Reg. No. 41,839

Tel.: 949-380-5643 (Pacific Coast)

Fax: 949-380-5254

Unisys Corporation
25725 Jeronimo Road, MS 400
Mission Viejo, CA 92691

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